CLAIMS

1. Air conditioning pilot device for vehicles comprising a compressor (2) powered by the vehicle's motor (1) by way of clutch engagement (3), a condenser (7), at least one evaporator (8, 9), and a main circuit for circulating refrigerant fluid between the compressor (2), the condenser (7), and the said evaporator (8, 9), the circuit having a first branch circuit (30) leading fluid from the compressor (2) to the condenser (7), a second branch circuit (31) leading fluid from the condenser (7) to the said evaporator (8, 9), a third branch circuit (32) pulling fluid from the evaporator (8, 9) toward the compressor (2), characterized by having a complementary circuit (33) located between the first branch circuit (30) and the third branch circuit (32), designed to return gas collected by the compressor to the air intake of the compressor and a control device (5, 10) enabling and disabling the complementary circuit.

2. Device as defined by the claim 1, characterized by that it incorporates a check valve (6) located on the first branch circuit (30) downwind of the complementary circuit to hold fluid in the condenser when the complementary circuit (33) is enabled.

3. Device as defined by claims 1 or 2, characterized by that it incorporates a computer (10) to manage the air conditioning device by means (15) of detecting when the vehicle accelerates.

4. Device as defined by the claim 1, characterized by that the computer (10) contains a means (16) by which to detect the motor (1) speed while idling.

5. Device as defined by one of the preceding claims, characterized by that it contains means (11, 12) by which to measure the internal and/or external temperature of the vehicle.

6. Device as defined by one of the preceding claims, characterized by that the compressor is a spiral rotary compressor.

7. Method for controlling a vehicle air conditioning device comprising a compressor (2) powered by the motor (1) of the vehicle (100) by way of clutch engagement (3), a condenser (7), at least one evaporator (8, 9), and a main circuit (30, 31, 32) for circulating refrigerant fluid between the compressor (2), the condenser (7), and the said evaporator (8, 9), a complementary circuit (33), designed to return gas collected by the compressor to the air intake of the compressor, a control device (5, 10) for the complementary circuit, and means (15, 16) of detecting idling, acceleration, and deceleration of the vehicle, characterized by that is incorporates sequences to enable the complementary circuit (33) upon detection of acceleration of the vehicle's motor.

8. Method as defined by the claim 7, characterized by that the air conditioning device incorporates a control device (4, 10) for the engagement and disengagement of the compressor. The method consists of sequences to enable the complementary circuit (33) simultaneously with the engagement of the compressor.

9. Method as defined by the claim 8, characterized by that it incorporates sequences disallowing the engagement of the compressor upon detection of acceleration or high motor speed in the vehicle.

10. Method as defined by one of the claims 7 through 9, characterized by that, the device incorporates a means (11, 12) to measure the temperature of the interior and exterior of the vehicle, the method incorporates sequences for temperature regulation of the vehicle's interior by managing the complementary circuit (33) through a function of measures produced by means of measuring the temperature on the interior and exterior of the vehicle.

11. Method as defined by one of the claims 7 through 10, characterized by that the sequences enabling the complementary circuit (33) upon detection of acceleration of the vehicle's motor are followed by maintenance sequences on the complementary circuit for a maximum duration as determined by a measure of the vehicle's interior temperature.